



The Growing Zone

A Newsletter for Gardeners of all Levels

By Helena Area Master Gardeners

Volume 2 Issue 1

January 2012



Local Master Gardeners Honored in Hamilton

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For additional issues of The Growing Zone, go to <http://www.co.lewis-clark.mt.us/index.php?id=75>

Judy Halm

The Second Annual Master Gardener Celebration was held October 29, 2011 in Hamilton.

During the Celebration, awards were presented to outstanding Master Gardeners from around the state and to the Master Gardener Coordinator of the Year. **Brent Sarchet**, Lewis and Clark County Extension Agent, was awarded the Master Gardener Coordinator of the Year for his tireless efforts to improve the Master Gardener program in the Helena area.

Toby Day, MSU Extension Horticulturist and Montana Master Gardener coordinator, said "Brent has gone above and beyond to make the Master Gardener program a success in Lewis and Clark County. His enthusiasm and hard work reflects the quality of his program." Brent has taught four Level 1 and three Level 2 Master Gardener classes since 2010, totaling 184 students, and has four students in the Level 3 Master Gardener training.



Brent Sarchet and Ann Waickman, Executive Director of Food Share

Jim and Marla Clark of Helena received the award of Outstanding Master Gardener of 2011 for the Helena area. Only a select few Master Gardeners from across the state are selected to receive the award.

"Jim and Marla Clark are both very committed to Extension services in Lewis and Clark County," said Brent Sarchet, Lewis & Clark County Extension Agent. "Marla took on the unofficial role of recruiter for the Master Gardener program and other Extension programs. Together with Jim, they have helped with everything from beekeeping classes, clean up duty, coffee duty, contributing to and helping to edit "The Growing Zone" newsletter, working with community gardening projects, not to mention transportation of the farmer's market booth every weekend."

"The Master Gardener Program has been very rewarding for both of us," said the Clarks. "We have not only learned a lot about plant growth and development, but have made so many wonderful new friends." Congratulations to Jim and Marla Clark!

Judy Halm of Helena received an honorable mention for the award for her work on The Growing Zone newsletter.

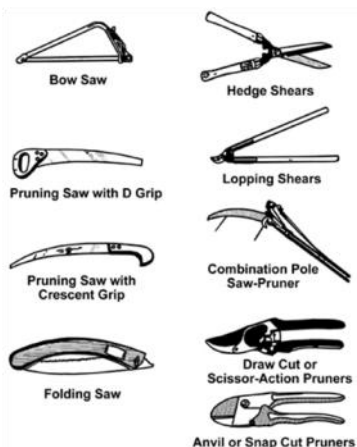
If you would like to learn more about the Montana Master Gardener Program please visit: www.msuextension.org and follow the Yard & Garden link on the left menu to Master Gardener Program. If you have any questions about the Master Gardener program, contact the Lewis and Clark County MSU Extension office at (406) 447-8350 or contact Toby Day, MSU Extension Horticulture Specialist at toby.day@montana.edu or by calling (406) 994-6523.

To sign up for electronic delivery of The Growing Zone Newsletter, go to the Lewis & Clark County Extension web page, <http://www.co.lewis-clark.mt.us/index.php?id=75>, and create a login account.

It's Time to Prune - Now What do I do?

By Jim Clark and Joy Lewis

If cutting into what looks like a perfectly happy plant makes you cringe, you're not alone. Many gardeners know the benefits of pruning but are still confused about exactly when to prune and where to cut, fearing they will lop off next year's flowers, stunt the plant's growth, or outright kill it. Pruning has three basic benefits; directing growth, improving health and increasing production.



Common pruning tools

Cuts heal more quickly when made in the right location and at the correct angle with a sharp, clean tool. Find a branch with a bud facing the direction you want new growth to follow. Prune just above the bud (1/4 inch) at a 45-degree angle, with the lowest point of the cut farthest from the bud.

The key to successful pruning involves two basic cuts. The thinning cut is used to open up the plant by removing whole branches down to the base or take off large sections of branches back to a main stem, which will allow light and air to reach the center of the plant and encourage healthy new growth. Just remember not to remove more than one-third of a plant's mass in a year.

The second cut is the heading cut. Use this cut to encourage growth in the right direction. While thinning cuts remove whole branches, the heading cut shortens a branch down to a bud you want to encourage to branch out. For a heading cut prune the light side of your plant to stimulate growth and even it out. For this cut prune 1/4 inch above a bud that will grow in the direction you want. Do not remove more than one-quarter of a stem's overall length in any single cut.

For plants that are dramatically lopsided, use thinning cuts to remove older wood from the longer side as well as heading cuts on the shorter side. Again, don't remove more than one-third of a plant's branches at any one time. If necessary spread your pruning project out over two or three

years on a real unruly plant.

Prune newly planted trees and shrubs to allow for good overall form and less pruning as the plant matures. For example: if a fruit tree has two leaders, prune out the weaker one to encourage the apical dominance of the remaining leader.

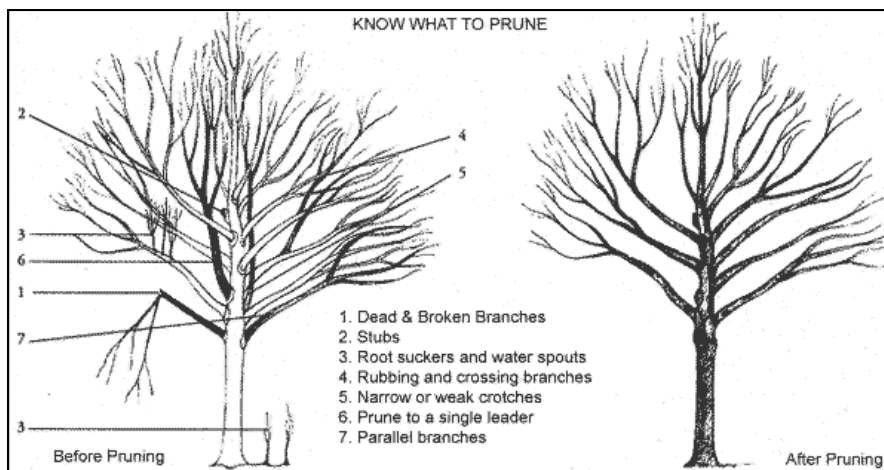
In general, always prune out dead wood first. Next look for crossing or rubbing branches and remove one or the other, or in some cases both. Always remove diseased branches, and those growing straight up from a lateral branch, or growing in toward the main trunk. Prune out weak branch crotches cutting them at a 45 to-90 degree angle. Remove lower branches unless they are helping to protect the tree from animals. After two to three years, prune out the lower ones, gradually removing the larger branches first.

Avoid the urge to top a tree! Topping is the drastic removal or cutting back of large branches in mature trees. The tree is sheared like a hedge and the main branches are cut to stubs. Topping can lead to numerous health issues for the tree, including leaving it susceptible to insects and diseases.



Topped tree

Pruning can seem daunting but there are many books available through your local library that can help with clear illustrations and step-by-step species guides. Some plant species do better with thinning cuts, while others flourish with heading cuts. As an example, there are three groups of clematis vines, each of which requires different pruning techniques; some need cutting back to just above the lowest pair of strong buds while others will die as a result. In addition, many plants, trees and shrubs require pruning at different times of the year. Always ask the local nursery where you purchased your plant how to prune it, as well as how to properly care for it.



Pruning Chart by Connie Geiger and Joy Lewis



PRUNING CHART
General rule: plants that bloom on new shoots should be pruned before blooming; plants that bloom on last year's growth should be pruned after blooming; plants that bloom on 2+ year old growth should be pruned as needed, usually when dormant.

Note: pruning requirements of NEW plants may differ from instructions below - check a pruning guide for more information.

Growth to Cut	WHEN TO PRUNE					NOTES
	Late Winter	Early Spring	Late Spring	Summer	Fall	Winter
Deciduous trees	X	X				when dormant
Evergreens - generally		X				before growth to contain growth; during new growth for density; prune less than 1/3; above where foliage starts
pinus		X				pinch candles by June, up to 1/2 of new growth
juniper, arborvitae, yew		X		X		needs little pruning; for dense or compact growth-anytime in growing season before August. Otherwise between April and May before growth buds swell.
spruce			X			leave at least one live bud per branch
broadleaf evergreen		X				before growth to contain growth; pinch new growth for density
Deciduous hedge			X			after Spring growth flush; narrow at top
Spring Flowering shrubs			X			after flowering
Summer/fall Flowering shrubs		X		X	X	after frost danger and before new growth; or after flowering
Apple/pear trees	X	X				when dormant
Stone fruit trees		X				when dormant
Currant/gooseberry	X	X				before new growth; leave 3 canes each of 1-yr-old; 2-yr-old, 3-yr-old
Chokecherry		X				prune to open center
Raspberry - spring/single bear		X		X		remove bearing canes after harvest; thin and remove damaged canes in early spring
Raspberry - everbear				X		remove fruit-bearing top of current year canes after harvest; remove 2nd year bottom bearing canes
Blackberries		X		X		Spring: remove dead/damaged; thin and trim others. Summer: after harvest top off new canes to 3'
Service (June) berry	X	X				top off to 6'; remove dead/damaged and suckers to 3' radius; open center

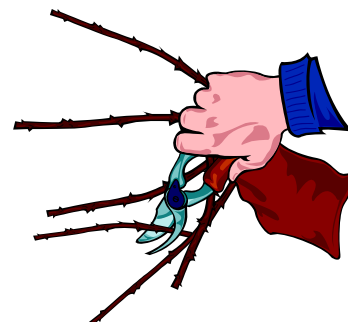
Pruning Chart by Connie Geiger and Joy Lewis

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Growth to Cut		WHEN TO PRUNE						NOTES
		Late Winter	Early Spring	Late Spring	Summer	Fall	Winter	
Grapes	3/4 of previous year's						X	when dormant
Woody stem herbs			X		X			cut back 1/3-1/2 when new growth appears; deadhead
Most perennial flowers	all	X			X	X	X	In summer cut back or deadhead flowers to encourage more flowering during growing season.
Roses								
Tea roses	current year		X				X	early spring before bloom, or fall after leaves drop, trim to 1-2'
Tree roses	current year		X					before bloom; trim to 6-10" above crown
Miniature roses	current year		X					before bloom; remove dead growth and hips
Climbing roses					X		X	Summer: trim side shoots to 3-6". Fall: after leaves fall remove 1-2 oldest canes, keep 5-8 new canes
Shrub roses- generally			X				X	before new growth - mid feb to mid March: or after flowers
blooms on old wood/ has few new shoots	old growth							occasional removal of old growth
blooms on old wood/has lots of new shoots	old growth							occasional removal of old growth
blooms on old and new wood	(see notes)							cut vigorous growth by 1/3; thin twiggy growth; deadhead



Gardening... It's all About the Soil!

Judy Halm

If you put a plant or some seeds into the ground, add water periodically and are pleased when the plant grows or the seeds produce a nice tomato, you might think that you got a great plant from the nursery, or a wonderful variety of seeds from the local store. But no matter what you grow – prized peonies, fragrant roses, beets, carrots and corn for fresh eating, or just a marvelous green lawn for you and your family to enjoy – the growth depends on a very important ingredient: the soil in which the plants are growing.



As gardeners, we deal with soil nearly every day during growing season, but how many of us really know what goes into the makeup of our soil, what factors cause it to produce excellent – or poor – crops, how our actions can help or harm the soil, or how to help the soil to grow even better plants?

This series of articles will describe how soil is created, the components of healthy soil, plant nutrient requirements and how you can improve the quality of your soil.

Where does Soil come from?

While we might think of soil as finely ground rocks, it is really much more. Instead of being an inert substance, soil is a living, dynamic system in which complex chemical and biological changes are always taking place. Soil is formed from various starting or parent materials in a landscape, including bedrock layers and small rock pieces, decaying vegetation such as grasses, leaves and tree limbs, and the decaying remains of living organisms like bacteria, molds, earthworms and algae. The action by climate and living organisms over time reduces those starting materials to the soil we see in our garden or flower bed.

Soil Layers

If you were to dig a deep hole in your garden, you would likely see one or more horizontal layers of soil material, one under the other, extending down into the hole. These layers are called “horizons.” There may be considerable variation between the top and lower layers in terms of color, texture, consistency and structure. Each layer in turn may be divided into various sub-layers.

The top few inches (depending on the location) of the ground is the **topsoil** or “A” Horizon. Good topsoil will usually be dark in color, due to **humus**, which is organic material from plants, animals and other organisms in various stages of decomposition. Biological activity is at its highest in this layer. The topsoil will also be loosely packed together, again due to the organic matter it contains. Most plant growth takes place in this layer of the soil.

The next layer is the **subsoil**, or “B” Horizon, which is usually lighter in color and contains less organic material than topsoil. Because minerals may be leached from the topsoil by water percolating through the ground, subsoil may slightly resemble the topsoil. The subsoil is firmer and usually of a finer texture, and acts as a storage reservoir for water and plant nutrients.

The bottom layer is **the parent material**, or “C” Horizon. This layer contains the underlying geologic material from which the topsoil was created. It may contain bedrock of either sedimentary, igneous or metamorphic origin, or material which was transported by ocean or stream deposits or by glacial activity.

If the soil in your garden looks different from the soil in your neighbor’s garden, don’t be too surprised. Your topsoil may have been hauled in after the construction of your home, because the existing topsoil was bulldozed away during constructions, or your neighbor’s soil may have been deposited by a flowing stream centuries ago.

Soil Texture

Soil texture is the relative proportion of four main components that combine to create soil: sand, silt, clay and organic material. Sand is large enough to see unaided, and is irregularly shaped so it feels rough when you rub it in your hands. Individual **silt** particles are much smaller than sand, although the particles are still irregularly shaped. Moist silt feels smooth and floury in your



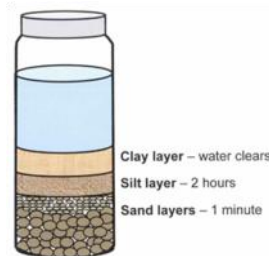
Gardening - It's all About the Soil!...continued

hands. **Clay** particles are nearly flat and cannot be seen without an electron microscope; clay is hard and brick-like when dry, and slick and sticky when wet.

The ideal soil, called loam, will have the right proportions of those components to allow for water, minerals, air and organic matter to feed and nurture the plants. The soil should have a crumbly, cake-like consistency, be easy to work and retain sufficient moisture.

Soil with larger particle size (sand) will have better drainage and aeration ability. Very fine particles (clay and silt) tend to drain poorly and have less space for air. A combination of sand, silt, clay and organic material allows for good drainage while still retaining moisture, air space to provide oxygen to plant roots, and room for the roots to extend down into the soil.

You can have your soil tested to determine its texture; contact your local County Extension Agent for more information. You can also get a rough estimate of your soil texture by putting some of your soil in a quart jar of water, shaking it for several minutes, and allowing the sediments to settle out. Sand will settle to the bottom; silt will be above the sand layer, and clay will be above the silt. Colorado State University Extension Service has directions for this procedure at <http://www.ext.colostate.edu/mg/gardennotes/214.html>.



Improving Soil Structure

If your soil has a consistency that is less than ideal for your growing needs, there are ways to improve the quality. Clay soils can be amended with coarse sand, vermiculite or perlite, although these may be expensive to purchase. Sometimes these coarse materials can make the situation worse, turning clay soil into something resembling concrete. A better choice for improving structure would be to add organic matter, in the form of manure, peat, chopped hay, straw, grass clippings, leaves, household vegetable waste and other organic materials. Organic matter also can be added through cover crops, such as clover and buckwheat. These plants are grown to blooming, then incorporated into the soil through digging or tilling.

Composted materials are best, although uncomposted material will decompose in the soil over time. Soil organisms will decompose the uncomposted material, provided moisture, aeration, warm temperature and adequate nitrogen are also present. Because soil organisms use nitrogen to decompose organic material, the soil may experience a nitrogen deficiency for a time, unless additional nitrogen is added through an organic fertilizer such as blood meal or fish emulsion.



As mentioned above, soil should have a crumbly, cake-like consistency. Added organic matter will go a long way toward helping to maintain this structure. Additionally, avoid compacting the soil by walking, tilling or driving on it when it is too wet. If the soil sticks to your shovel, it is too wet.

Once your soil has a more ideal consistency, you can move on to a new challenge: feeding the soil so it can feed your plants. The next article in this series will discuss the ways to create fertile soil to help your plants thrive.

Grant Award to Benefit Master Gardener Program

Marla Clark

This last October Helena Master Gardener Jim Clark qualified for and won an IBM Community Grant of \$1000.00 as a celebration of his many years of community volunteer service.



The grant was presented to Jim as part of the IBM 100 year anniversary celebration. "Working with Brent Sarchet, the Lewis and Clark County Extension Agent and Master Gardener coordinator, we decided the money would be best used to help instruct on season extension within the Master Gardener Program," said Jim. The award money will be used to build a high tunnel cold frame greenhouse at the Master Gardener gardening site at the Lewis and Clark County Fairgrounds. "With our short growing seasons in mind, this high tunnel cold frame will not only provide hands-on education in season extension but also provide for additional volunteer hours in setting up and maintaining a hoophouse," Jim said.

Dreaming Green: Time to Plan Ahead!

Joy Lewis

At this time of the year we tend to think that spring and the return of green and growing plants will never arrive. With the landscape frozen, we wander away our time dreaming of flower beds brimming with color. But now is the best time to start planning for the upcoming growing season. If you had the time this fall to build raised beds or dig some beds up, you're way ahead of the game. If not, then you have a great project for the winter. Visit your local lumber yard and purchase some redwood, cedar or composite boards and 2x4s and begin building raised beds. Give some thought about the height of your beds. As we age, bending over gets harder. Google "raised beds" to find building instructions and designs or visit the Library.



When spring arrives and the soil becomes workable, dig up any turf or lawn that lies under the raised bed and a good 12 inches out around it. Lay down heavy landscape cloth to discourage weeds or grass from invading your new bed.

In the meantime, start out by looking at where in your yard is the best place for a flower or vegetable bed. Make sure that you take into account any leafy or deciduous trees that are bare now but by summer may shade your bed. This can be very advantageous if you plan to grow shade-loving plants like hostas or coral bells but disastrous for veggies and sun-loving flowers. Consider also which direction your yard faces. North facing yards will produce more shade while south facing yards more sun. East and West will have great sun and shade at different times of the day. Many leafy veggies like spinach and lettuce thrive best in morning sun and cooler afternoon shade. Take some time to think about and plan your garden out. What type of plants do you want and where? Will they flourish where you want to place them? Drawing up a plan can really help visualize and solidify your vision. It's always best to start small and keep things manageable.

Volunteer Hours for Master Gardeners!

Need more volunteer hours? Want to increase your gardening knowledge via "hands on" experience? Willing to share the gardening expertise that you have?

Check out the following Master Gardener volunteer projects for 2012:



Original Governor's Mansion historic plantings: Help us to research and plan new flower beds and plantings at the OGM, to make them more historically accurate. Contact: Connie Geiger at 406-449-3552; connie-inmt@aol.com.

Tizer All American Selections Display Garden project: Master Gardeners and other volunteers cleared a new garden area in preparation for the new All American Selections Display Garden seedlings this spring. Assistance is needed to complete the planning, landscaping, and planting of the new plants. Contact: Brent Sarchet at (406) 447-8346 bsarchet@co.lewis-clark.mt.us or Connie Geiger at 449-3552.

Growing Zone Newsletter: We are always looking for new ideas, contributors, and editors to keep this newsletter informative and interesting to all gardeners. Writing experience or talent

is **NOT** required. If you have a gardening interest you've wanted to learn more about, here's your chance to research it, and then share the information with other gardeners. We'll help you with the writing and editing if needed. Or if you just have some good ideas for content or graphic design, we will welcome your input. Contact: Judy Halm, 431-1820; joregon@bresnan.net.

Farmer's Market Extension Booth: Even if you're not available on Saturdays in the summer we welcome your input in planning presentations or workshops at the booth, and planning how to raise awareness about Extension services provided by Master Gardeners at the booth. Contact: Brent Sarchet at (406) 447-8346; bsarchet@co.lewis-clark.mt.us.

Tizer Botanic Gardens and Arboretum: A new annual event is being created at TBGA. "**Herb Day**" will be held August 19th. The focus will include growing, harvesting and preserving herbs. Although parts of the program are already being set up, much help is needed with ideas and planning. Contact Belva at TBGA, 406-933-8789 for more info or to volunteer.

An annual "**Gardener's Day**" is being planned for September 15th. Planning help and new ideas are also needed for the event. Contact Belva at TBGA, 406-933-8789 for more info or to volunteer.

Heirlooms Plants and Seeds

Karen Semple

When you hear or read the word “heirloom” what do you think of? Grandma’s tablecloth, or something handed down by your ancestors to be preserved for future generations? If so, then you already understand a lot about heirloom seeds.

Heirloom varieties are open-pollinated plants with a long history of being cultivated and saved within a family or group. They have evolved by natural or human selection over time. An open-pollinated (OP) variety breeds true from seed, meaning the seed saved from the parent plant will grow offspring with the same characteristics as long as the plants are isolated preventing cross pollination. OP seed is produced by allowing a natural flow of pollen between different plants of the same variety through the actions of insects, wind, birds or other natural means.

Hybrid varieties do not breed true from seed; hybrid seed is produced by crossing two different parent varieties of the same species. Hybrids do not remain true in generations after the initial cross and cannot be saved from generation to generation unchanged.

I started with heirlooms by planting columbine seeds I received from my elderly neighbor in the mid-1990s; she got them from the homestead where she was raised up Lump Gulch in Clancy. The heirloom seeds I have planted produce plants that are heartier, more disease and pest resistant, and often more prolific over a longer season than hybrids. For instance, I planted my heirloom tomatoes in late May, and then didn’t remove my plants out of the garden until October 26th, when single-digit low temps were forecasted for that night. I only covered them in the eve-

nings with old sheets before then, to protect from frost. I brought them into the house and hung them upside down in my dark basement to allow the tomatoes to continue to ripen. I just picked my last handful of ripened cherry tomatoes on December 31st! My heirloom catnip was still going strong until that end of October freeze – long after a friend’s hybrid variety down the road had been lost to frost.



Heirloom vegetable seeds can be purchased locally at The Real Food Store, which carries seeds from the Seed Savers Exchange (SSE). The Seed Savers Exchange mission is to save North America’s diverse but endangered garden heritage for future generations. SSE maintains one of the largest non-governmental seed banks in North America, with the goal of making varieties available to the public. They facilitate a seed exchange among their members who garden in all 50 states and 40 different countries, and they promote some of those varieties through their commercial catalog. All of this work is done for the long-term preservation of heirloom and open-pollinated varieties. You can purchase seeds from them online; they can be found on the web at <http://www.seedsavers.org/Content.aspx?src=savingheirlooms.htm>.

If you want to experience a step back in gardening time to find heirloom seeds, plan a trip to Fisher Seeds in Belgrade. The store is run by Judy Fisher, a third-generation seed saver. Call first at 406-388-6052, to make sure she’s open. The store opens for retail on March 1st. The seeds sold there are tried and true heirloom varieties that grow well at our altitude and with our short growing season; some have been grown in that location for over 80 years now. The store is located on Main Street on the way east out of town, east of the Belgrade Fire Station, on the north side of the street. For a catalog of the seeds available at the store, send \$2 to: Fisher’s Seeds, PO Box 236, Belgrade, MT 59714. They’re available now. Return customers get a free catalog sent automatically the next year.



The Museum of the Rockies in Bozeman also sells heirloom seeds in their store, as do numerous online seed catalogs.

Heirloom tomatoes ready for market
photo by Kent Lorentzen
Grand Rapids Farmers' Market,
University of Minnesota Extension

Tizer Botanic Gardens and Arboretum to Host All-American Selections Display Garden

Judy Halm and Richard Krott

Tizer Botanic Gardens and Arboretum, located just outside of Jefferson City, has been selected by the All American Selections organization to be Montana's first AAS Display Garden in Montana. An All American Select Display Garden is "a public or privately funded garden that grows AAS Winner plants in an outdoor landscape setting, using horticulturally sound practices which beautify the environment. The network of display gardens was developed to provide gardeners an opportunity to view these new and improved winning varieties and to judge for themselves the merits of each winner."

All American Selections, begun in 1932, is an independent, non-profit organization that tests new varieties of flowers and vegetables, and then introduces only the best garden performers as AAS Winners. Trials are conducted at Display Gardens in various locations around the country, and in various growing conditions, to determine varieties which will provide the best performance for home gardeners. Visit AAS at www.all-americaelections.org.

Tizer Botanic Gardens, along with Tizer Nature Connection, MSU Extension Agents from Lewis and Clark and Jefferson counties, local Master Gardeners and the Helena Garden Club are cooperating to build, design and maintain the Display Garden. Seeds of AAS winners from the last four years will be sent to Tizer Botanic Gardens, started indoors and then transplanted into a new section of the gardens which is currently under construction.

In October, local volunteers gathered at the Display Garden site and worked to clear brush, rocks and debris, then helped dig and level accessible paths for the area. Some trees have already been added to the location, and AAS flowers will be planted in the spring. Those Master Gardeners looking for volunteer hours would be welcome to help with this project.

Contact Brent Sarchet, Lewis and Clark County Extension Agent, at BSarchet@co.lewis-clark.mt.us, or Andrea Sarchet, Madison-Jefferson County Extension Agent at asarchet@montana.edu.



Volunteers at the new All American Selection Display Garden at Tizer Botanic Gardens

All I Need To Know About Life I Learned From Trees

It's important to have roots.

In today's complex world, it pays to branch out.

Don't pine away over old flames.

If you really believe in something, don't be afraid to go out on a limb.

Be flexible so you don't break when a harsh wind blows.

Sometimes you have to shed your old bark in order to grow.

If you want to maintain accurate records, keep a log.

To be politically correct, don't wear firs.



Grow where you're planted.

It's perfectly okay to be a late bloomer.

Avoid people who would like to cut you down.

Get all spruced up when you have a hot date.

If the party gets boring, just pick up and leaf.

Be sure to cover your bare ash in the winter.

As you approach the autumn of your life, you can't hide your true colors.

It's more important to be honest than poplar.



Found online – author unknown; contributed by Joy Lewis

Recipes of the Month

Chili Potatoes – Karen Semple

These roasted potatoes can be as hot and spicy as you wish them to be. For a milder touch, cut the cayenne and chili powder down – do not cut the paprika! If you're ok with hot and spicy, try the amounts given below – you can always add more cayenne and chili powder. By eliminating the hot spices (cayenne and chili powder) this recipe can easily be adapted to feature your favorite herbs – feel free to experiment!

8-10 large red-skinned potatoes, unpeeled and quartered	1 teaspoon paprika
¼ cup olive oil	1 teaspoon garlic powder
1 teaspoon cayenne pepper	1 teaspoon onion powder
1 teaspoon chili powder	2 teaspoons garlic salt

Preheat oven to 400 °. Place cut potatoes in a large bowl. In a small bowl, combine the remaining ingredients – be sure to mix well. Pour over potatoes and toss to coat. Pour coated potatoes onto a large baking sheet. Bake uncovered 55-60 minutes, stirring or shaking pan occasionally (at least every 15 minutes), until brown and tender. Cooking time may be decreased by cutting potatoes into sixths or eighths. May be served with ranch-style dressing on the side for dipping. Enjoy!

Roasted Asparagus with Tarragon - Cathy Morris

In the next few months asparagus will be coming into season, and maybe even some will sprout up from your garden. This is a quick and easy recipe for preparing asparagus, and it tastes great.

Serves 4

1 pound thin asparagus
2 tablespoons chopped fresh tarragon
1 tsp grated lemon zest
1 tsp coarse sea salt
Freshly ground black pepper
2 tablespoons freshly squeezed lemon juice

Adjust the oven rack to the center position and preheat the oven to 450 degrees.

Trim off the tough ends of the asparagus spears and put the spears on a rimmed baking sheet. Sprinkle the olive oil, tarragon and lemon zest over the asparagus and toss to coat evenly; arrange the asparagus in a single layer on the pan and season to taste with the salt and pepper. Bake for about 10 minutes, shaking the pan occasionally, until the asparagus is lightly browned but still crisp-tender. Remove from the oven and transfer to a serving platter. Drizzle with the lemon juice and serve immediately.



“Firehouse Foods Cooking with San Francisco’s Firefighters” By George Dolese and Steve Siegelman

Baked Eggplant Parmesan by Lyn White

EGGPLANT:

2 large eggs, lightly beaten
1 lg or 2 small eggplants, peeled, sliced to ¼” thick
2 C Parmesan-Romano cheese, grated
1 C Parmesan, grated
2 C Mozzarella, shredded

COULIS:

1 T Olive oil
1 large red onion, diced
2 cloves garlic, minced
1 tsp Thyme
¼ tsp Cayenne pepper
1 T Red wine vinegar
1 14-oz can diced tomatoes

Directions:

Place Parmesan-Romano cheese on a plate. Dip eggplant slices in egg white mixed with 1-2 T water, then in cheese mixture. Place on a non-stick cooking sheet, top with shredded parmesan and bake at 350 degrees 30 min. until golden and cooked thru.

In a non-stick sauce pan or dutch oven, sauté onion and garlic in olive oil. Add tomatoes, vinegar and seasonings. Simmer without lid while eggplant bakes.

Layer eggplant in a casserole dish sprayed with cooking spray. Using slotted spoon, add a layer of coulis, top with mozzarella. Repeat layering. Spoon a little of the juice over layers before topping with final layer of mozzarella. If desired, sprinkle top layer of mozzarella with some additional parmesan.

Bake at 350 degrees for 45 minutes, until well heated and cheese is melted, golden on top.



Gardening Calendar

Connie Geiger

Conditions during each season in your location will determine the actual timing of your garden work. If you have questions regarding the timing of garden activities in your area, please feel free to ask a Master Gardener at HelenaMasterGardeners@hotmail.com.

January

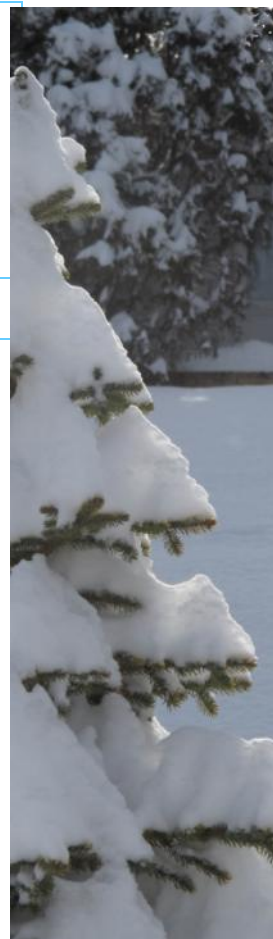
- Check storage vegetables and bulbs for mildew and rot, and destroy those affected.
- Reuse natural Christmas trees as a bird feeding station, or as added wind protection for evergreens; or cut limbs to use as winter protection for perennials
- Consult you garden journal and plan for the new growing season
- Plan and construct, or repair, garden projects: hoop houses, tomato cages, fences, gates, cold frames, trellises, benches
- Reapply or redistribute mulches that have blown or been washed away during the winter. Watch for frost heaving of tender perennials and cover if needed
- Replace windbreaks to protect sensitive landscape evergreens
- Moisten root system of stored geraniums (repeat monthly)
- Remember when deicing walkways and driveways to use calcium chloride or potassium chloride products that are less damaging to plants and lawns
- Bring out bulbs from cold storage for “forcing” for early indoor blooms
- Christmas flowering plants like poinsettia and amaryllis need bright light, cooler temps, fertilizing, and reduced watering
- Watch for rodent damage of trees and shrubs. Install mesh, wire or plastic trunk guards as needed
- Brush heavy snow and ice from tree and shrub limbs to prevent later damage. Multistemmed evergreens (arborvitae) can be tied together.
- Wrap tree trunks of young trees, and those with thin bark, to prevent frost cracking during cold sunny days
- Consult garden catalogues and start comparison pricing for Spring seed orders

February

- Check with local nursery and garden stores for seeds and early planting options
- Inventory and check dates of left-over seed packets; sprout a few in a moist paper towel to ensure still viable
- Order new seeds for Spring planting
- Clean, sharpen, and oil garden tools; sand and repaint handles
- Using detergent and mild bleach solution clean old pots and seed trays to prepare for seed starts
- Clean indoor plants; giving them a “shower” helps remove dust that can clog pores or hinder light penetration and can also wash salts from the soil

March

- Repot indoor plants once vigorous growth begins
- Set up an area for starting your garden seedlings – good light and heat source etc.
- Draw garden layouts
- Review garden journal and notes about successes and failures of previous years
- Take a soil test of your garden soil, if not done in the last 5 years
- Trim certain fruit trees and deciduous trees, and some shrubs
- Cut back dead rose canes, ornamental grasses, and any remaining perennials in flower beds
- Rake remaining leaves from the lawn, to prevent suffocation
- Review lawn service contracts and make changes
- Apply dormant oils to trees and shrubs
- Cover patches of garden with black plastic to warm the soil for early plantings
- Set up a cold frame or hoop house for early start on greens, onions, and radishes
- Tune up and repair lawn mowers, garden tractors, and rototillers
- Aerate, fertilize, and possibly thatch, the lawn
- Once Spring blooming shrubs (forsythia, pussy willow, crabapple) form tiny buds you can cut them to bring indoors and put in water, to force them to bloom



Ask the Experts

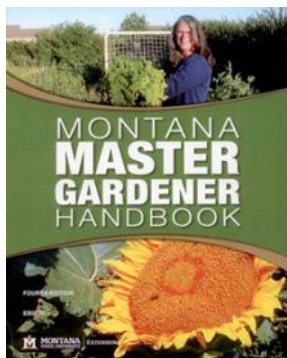
We all have questions about our gardens, lawns, trees, flowers or other landscape projects from time to time. Ever wish you could ask an expert in the field for answers to your questions? Here's your chance! In each issue of the newsletter we will answer one or more questions posed by our readers. Send in your questions to HelenaMasterGardeners@hotmail.com and we will pass the questions on to our expert panel for answers.



Brent Sarchet, Lewis & Clark County Extension Agent

Q. I have a lot of time on my hands this winter. Do you have any suggestions for reading materials?

- A. For many of us, winter is the time when our lives slow down just a little to allow for some time to catch up on some reading. Those of us who have the “gardening disease” will be picking up the latest gardening book or maybe re-reading a favorite gardening resource from the past, rather than picking up the latest fiction novel on vampires or wizards. Whether it is new releases like “**The Complete Guide to Seed Saving**” by Bob Gough, who recently hung up his gardening trowel for the last time and is truly missed, and his wife Cheryl Moore-Gough, or maybe “**What’s Wrong With My Vegetable Garden**” by David Deardorff, or old favorites like “**The Smart Gardener’s Guide to Growing Vegetables**” by Bob Gough, we all have a book that we have been anxiously looking forward to reading. It has been waiting patiently on our night stand or recliner, staring at us and calling our name. It is also the time when the seed catalogs start arriving plugging up our mail box, and we are left with the difficult decisions on what to plant this coming Spring. Should I try the Goliath variety of tomatoes, an heirloom tomato like Cherokee Purple, or should I stick with my standard Early Girl? For those of us who don’t have the winter reading list planned out, a short survey was sent to the Helena Garden Club and Master Gardeners in the area asking them their favorite gardening/horticultural resource, gardening or horticulture books that they will be reading this winter, and where they purchase seeds.



The survey results have arrived, and the favorite gardening and horticulture resource is the Internet with various unnamed online resources. It was followed by the “**Montana Master Gardener Handbook**” and then MSU Extension’s Website. There were 15 different favorite gardening resources listed by the survey takers.

The most popular book that people are reading or will be reading this winter is “**Gaia’s Garden**” by Toby Hemenway. The next most popular was “**Montana Gardener’s Companion**” by Bob Gough and Cheryl Moore-Gough. A total of 19 different books and magazines were provided.

Local gardeners turn to a local business most often for their seeds. Fischer Seeds and then Johnny’s Seeds were a close second and third respectively. There were 21 different seed sources listed by the survey takers.

Regardless of what book, magazine or catalog you will be reading this winter, take the time to relax with a warm cup of your favorite winter beverage, enjoy family and friends, and answer those difficult gardening dilemmas: should I plant Nelson carrots, or maybe be adventurous and plant Purple Haze carrots, or maybe...? Thank you to those who completed the survey.

Plant Profile - **Poinsettias**: A Holiday Treasure That Endures



Joy Lewis

One of the most beautiful and popular Christmas holiday plants is the poinsettia. Its bright red, cream, yellow, or lime green foliage adds a bit more cheer to our holiday festivities. Every year millions of these plants are purchased as gifts or taken home to fill out the decorations. They add a dramatic and elegant touch to many households during the holidays. And every year when the season comes to an end, so too does the poinsettia. The sad truth is that poinsettias are relatively cheap to purchase and many people would rather toss them, knowing that next year they'll purchase a fresh new plant. However, there is hope for those of us who want to keep their poinsettias going until the following year, although this can be a complicated and labor intensive procedure.

A Brief History

Poinsettia is a member of the Euphorbiaceae Family – *Euphorbia pulcherrima*, and translates to “very beautiful.” Its origins are traced to Mexico and Central America where it grows in the wild at lower elevations. As the first United States Ambassador to Mexico, Joel Roberts Poinsett discovered a colorful shrub growing wild in 1828. He took cuttings back to South Carolina where he propagated them in his greenhouse. In the early 1900s the Ecke Family began propagating and growing poinsettias in southern California and became the leading producers of the plant in the United States. The popular name poinsettia was given to the plant by William Prescott who, in his book, “Conquest of Mexico” talked about Poinsett’s discovery of the plant.

Now Some Facts

What appears as colorful flowers of the poinsettia are actually groups of bracts or colorful leaves that surround small true flowers, called cyathia. The leaves below all the colored bracts are usually a dark green. Poinsettias will tolerate many different light conditions but will need bright light for re-blooming. Never let the leaves or bracts touch a cold window. Always unpack plants from sleeves immediately or defoliation may occur due to ethylene gas build-up. Keep plants evenly moist. Watch for spider mites and mealy bugs especially if you plan to keep your plant going into the coming year. Poinsettias are tropical plants and to thrive during their peak season they need lots of direct

sunlight and temperatures in the daytime between 65 and 75 degrees. Night time temperatures should not go below 60 degrees.

Contrary to popular belief, poinsettias are not poisonous. A child or pet eating a few leaves will not become sick or die. An Ohio State University study confirms this. The sap from a cut stem may irritate exposed skin but would have to be consumed in large quantities to cause a stomach ache.

Bring on the Blooms Again!

After the plant has finished its blooming cycle, gradually reduce the amount of water until the leaves yellow and drop. Water just enough to keep the roots moist. Cut back stems to 4-6 inches above soil. Place in a sunny window and begin watering evenly. As the plant begins to grow foliage, start pinching back on the bracts to encourage it to fill out. Poinsettias are considered “short day” plants, meaning they need 6-8 weeks of short days (8-10 hours of sunlight and 14-16 hrs of complete dark) to re-bloom. So when October finally rolls around, start your “short day” procedure, and with a little bit of luck you’ll have your Christmas Poinsettia blooming again.

For a month-by-month poinsettia re-blooming plan visit : <http://gardening.about.com/od/winterinthegarden/a/Poinsettia.htm>

Sources for this article include:

“Complete Guide to Houseplants” 2004, Meridith /Ortho Books, Des Moines, Iowa

“Concise Encyclopedia of Houseplants” Peter Chapman, William Davidson, Margaret Martin, 1987, Crescent Books, New York

Online: www.Aboutgardening.com

The Poinsettia Pages – The University of Illinois Extension <http://urbanext.illinois.edu/poinsettia/index.cfm>

www.Truthorfiction.com/rumors/p/poinsettias.htm

Science, or para-science, tells us that geraniums bloom better if they are spoken to. But a kind word every now and then is really quite enough. Too much attention, like too much feeding, and weeding and hoeing, inhibits and embarrasses them. ~Victoria Glendinning

Event Schedule

Know of an upcoming event related to gardening?

Let us know at HelenaMasterGardeners@hotmail.com!

Hands-On Asters

Kelsey Chapter of Montana Native Plant Society

February 2, 2012

6:30 pm, Rm 321 Simperman Hall, Carroll College

Contact Kathy Lloyd, 449-6586 for more information



Montana Master Gardeners visit the Northwest Flower and Garden Show

February 8-12, 2012

Contact: Toby Day, 994-6523 toby.day@montana.edu

Cold Frames and Hot Beds

Helena Garden Club

February 11th, 2012

10:30 am to 12:00pm

Montana Wild Center, 2668 Broadwater Avenue off Euclid Avenue

Beekeeping Workshop, MSU in Bozeman

Saturday, February 25th, 2012

Contact David Baumbauer, baumbauer@montana.edu, for more information.

2012 Spring Beekeeping Workshop

Saturday, March 3, 2012

10:00 am – 3:00 pm Entry Hall at Fairgrounds

Cost is \$20 paid in advance

Sponsored by MSU, Lewis & Clark County Extension

Call (406) 447-8346 for more information



Gardening and Landscaping with Montana Native Plants

Kelsey Chapter of Montana Native Plant Society

Tuesday, March 13, 2012, 7:00 pm

Lewis & Clark Library

Level I Master Gardener Class

Thursday, April 5th, 2012

5:30 - 8:00 pm

Call (406) 447-8346 for more information

Fruit Tree Grafting Workshop

Saturday, April 14th

4-H Bill Hamilton Building at the Fairgrounds

Call (406) 447-8346 for more information

2012 Spring Poultry Workshop

Saturday, May 12, 2012

Morning classroom session: 9:00 am to 12:00 pm

Afternoon farm visits start at 1:00 pm

UM-Helena Lecture Hall

Jim Adkins, Poultry Specialist, International Center for Poultry

\$20 for adults if paid before May 5th or \$30 after May 5th, youth 18 or younger are \$10



Useful Links

MSU Extension Yard & Garden: <http://www.msueextension.org/category.cfm?Cid=5>

Missoula Plant Diagnostics Database: <http://www.co.missoula.mt.us/extension/plantdata/>

National Center for Appropriate Technology gardening publications: <http://www.attra.org/horticultural.html>

National Garden Association: <http://www.garden.org/>

Helena Garden Club: <http://helenagardenclub.wordpress.com/>

Lewis & Clark County Extension Office Web site: <http://www.co.lewis-clark.mt.us/index.php?id=75>

MSU Master Gardener Program: <http://gardenguide.montana.edu/mgardener/mgardenerindex.asp>

Growing Community Project: <http://helenagcp.wikidot.com/>

Contact Information

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